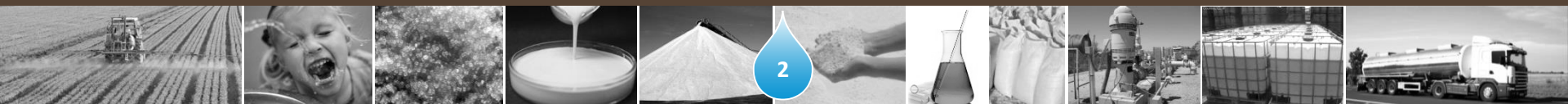


INTRODUCTION TO GWAC FINANCE COMMITTEE

May 15, 2017

Extracting Minerals From Water

- Hubble Hausman – Chief Executive Officer
- Paul Wallace – Chief Technology Officer
- Sue Snyder – Chief Operating Officer
- Craig Pedersen – Senior Vice President



INTRODUCTION TO EWM



- Enviro Water Minerals Company (EWM) has created a revolutionary desalination solution that extracts the dissolved solids contained in a variety of salty water sources for beneficial use
- EWM extracts and sells the minerals found in salty waters, thereby reducing the cost to desalinate water
 - Full resource recovery (no residual waste water / disposal issues)
 - Coupling of revenue from mineral sales and sale of potable water makes business model feasible
- Creates a new “cost point” for high TDS water as a water supply option – cost effective for previously “inaccessible” waters
- Intellectual Property – Portfolio of 12 patents/ patents pending
- Recently completed construction of first treatment plant in collaboration with El Paso Water



Example Sources

Brackish Water



Seawater



Produced Water



Full Recovery Desalination



- ✓ All contaminants separated into mineral products (zero discharge)
- ✓ Water yield = ~99%
- ✓ Is often cheapest new water supply option available

Example Production

Potable Water



Agricultural Gypsum



Caustic Solution



Milk of Magnesia



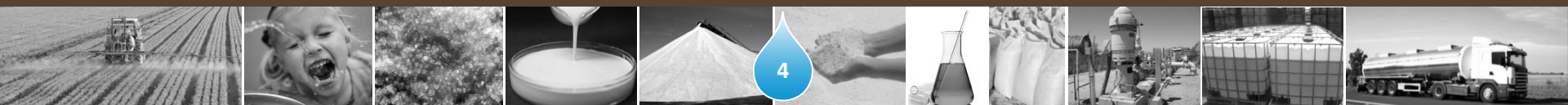
Potash Liquid Fertilizer



Bromide Rich Brine



High-Purity Salt



Full Recovery Desalination Plant

MUNICIPALITY RETAINS WATER RIGHTS, WELLS, AND DISTRIBUTION

Brackish Wells

Disinfection and Distribution



Potable Water
To Distribution

Chlorine

99% water recovery

ENVIRO WATER MINERALS FULL RECOVERY DESALINATION PLANT

Reverse Osmosis

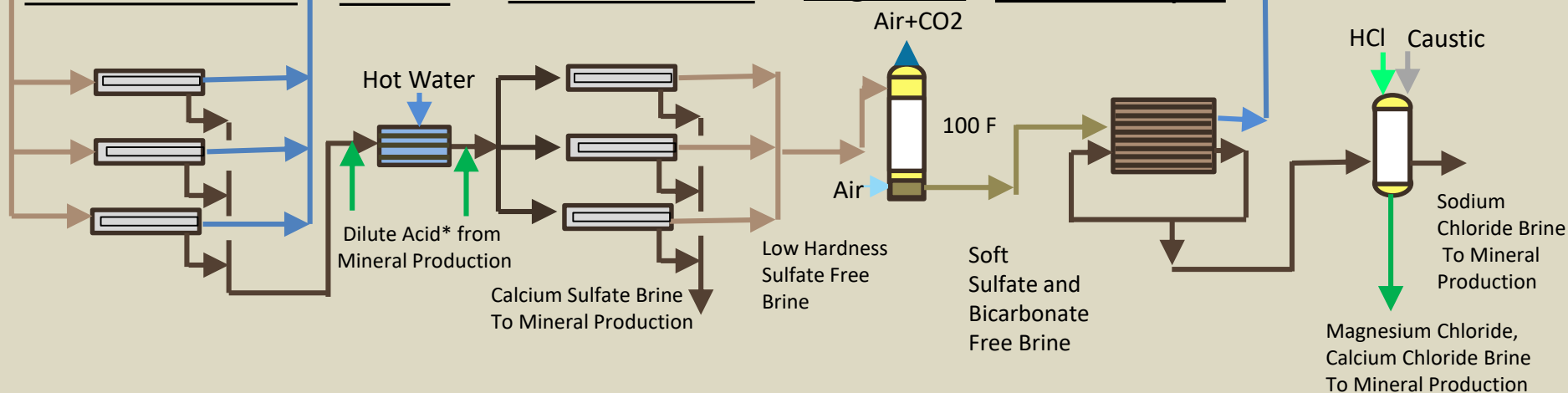
Heater

Nano-Filtration

Degasifier

Electrodialysis

Ion Exchange



* NSF 60 certified acid provides additional product water and silica desaturation



FIRST SITE: EL PASO

EWM's first project in El Paso is finishing commissioning and expected to commence full commercial operations soon



Benefits to El Paso include:

- Enhanced yield from existing desalinization plant (effectively 99%)
- Avoided concentrate disposal issues
- Preservation of brackish water aquifer life



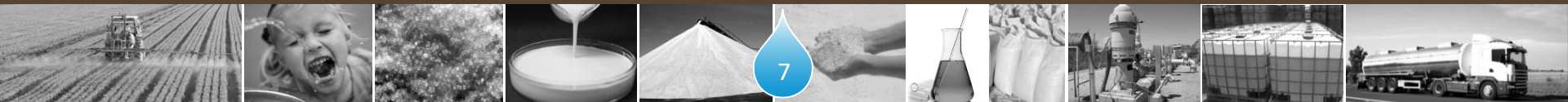
Enviro Water
Minerals

Brackish Well Water

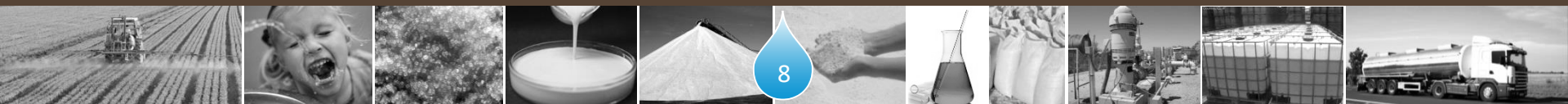
Concentrate

Potable Quality Water

El Paso Water
Utilities
KBH Desal Plant



- Process 1.3 mgd of raw brackish water + 1.3 mgd concentrate
 - Influent raw brackish water TDS: 2,500 mg/L
 - Influent concentrate TDS: 13,000 mg/L
- Products:
 - Potable-Quality Water (TDS<700 mg/L)
 - Caustic Soda (50% Concentration)
 - Hydrochloric Acid (35% Concentration)
 - Gypsum (high purity, 100% Soluble)
 - Magnesium Hydroxide (98% Purity, 56% Solid)



- Equipment used in water, food, chemical and energy industries
- Decades of demonstrated successful commercial use
- Applied in innovative configuration (basis of patents)
- Expensive – but EWM model uses revenue from minerals / chemicals to reduce cost burden

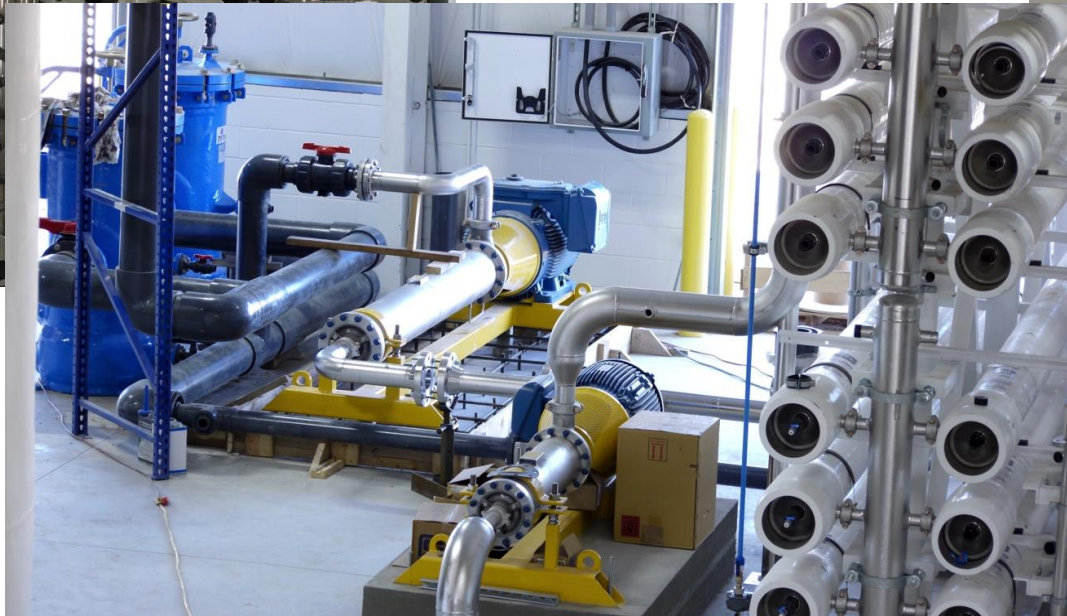


EL PASO PLANT

- Site = 6.3 acres
- Building = 50,000 sf



SITE PICS: RO / NANO FILTRATION



SITE PICS: PRECIPITATION



SITE PICS: ELECTRODIALYSIS



SITE PICS: ION EXCHANGE



OUTSIDE EQUIPMENT

6.5 MW Natural Gas CHP



Degassifier



Cooling Towers



Evaporator



SELECT EL PASO PARTNERS



EWM has partnered with leading designers, operators, equipment manufacturers and chemical distributors for its El Paso plant

Engineering / Design / Construction

NORRISLEAL
ENGINEERING WATER

AECOM

Operations and Maintenance

VEOLIA

Equipment Manufacturers



Solar Turbines

A Caterpillar Company

WESTECH
Process Equipment. Process Driven.

Revenue Partners



BRENNTAG

JH

JONES-HAMILTON CO.



DESALINATION REINVENTED

EWM's Full Recovery Desalination makes beneficial use of contaminants, eliminating costly and environmentally hazardous disposal issue

- All contaminants are separated into mineral products (zero liquid discharge)
- Water yield = ~99%
- Preserves finite aquifer resources
- Avoids disposal issues
- Often is cheapest new water supply option available
- Low CO2 footprint
- 12 Patents / patents pending

**2017
Innovative
Water Supply
Award**

*Winner of the Texas Water Development Board's
2017 Innovative Water Supply Award for the
Technology Category*

